

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

PMD18K SERIES NPN
PMD19K SERIES PNP

SILICON POWER
DARLINGTON TRANSISTORS

JEDEC TO-3 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR PMD18K/PMD19K series types are silicon NPN/PNP darlington power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal package, and designed for power switching applications. These devices are designed to be electrical/mechanical equivalents to Lambda part numbers.

MAXIMUM RATINGS (T_C=25°C)

	SYMBOL	PMD18K60 PMD19K60	PMD18K80 PMD19K80	PMD18K100 PMD19K100	UNIT
Collector-Base Voltage	V _{CEB0}	60	80	100	V
Collector-Emitter Voltage	V _{CEO}	60	80	100	V
Emitter-Base Voltage	V _{EB0}	5.0	5.0	5.0	V
Collector Current	I _C	30	30	30	A
Collector Current (Peak)	I _{CM}	60	60	60	A
Base Current	I _B	.75	.75	.75	A
Power Dissipation	P _D	225	225	225	W
Operating and Storage Junction Temperature	T _J , T _{STG}	-65 TO +200			°C
Thermal Resistance	θ _{JC}	0.78			°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I _{CER}	V _{CE} =RATED V _{CEO} , R _{BE} =1.0kΩ		1.0	mA
I _{CER}	V _{CE} =RATED V _{CEO} , R _{BE} =1.0kΩ, T _C =150°C		5.0	mA
I _{EB0}	V _{EB} =5.0V		2.0	mA
BV _{CEO}	I _C =100mA (PMD18K60, PMD19K60)	60		V
BV _{CEO}	I _C =100mA (PMD18K80, PMD19K80)	80		V
BV _{CEO}	I _C =100mA (PMD18K100, PMD19K100)	100		V
V _{CE} (SAT)	I _C =15A, I _B =60mA		2.0	V
V _{BE} (SAT)	I _C =15A, I _B =60mA		2.8	V
V _{BE} (ON)	V _{CE} =3.0V, I _C =15A		2.8	V
h _{FE} (PMD18K series)	V _{CE} =3.0V, I _C =15A	1000	20,000	
h _{FE} (PMD19K series)	V _{CE} =3.0V, I _C =15A	800	20,000	
h _{fe}	V _{CE} =3.0V, I _C =9.0A, f=1.0kHz	300	-	
f _T	V _{CE} =3.0V, I _C =9.0A, f=1.0MHz	4.0		MHz
C _{ob}	V _{CB} =10V, I _E =0. f=1.0MHz		600	pF